

High Technology Business Scan Addendum



Idaho Department of Labor
Communications & Research

Winter 2010-2011

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Acknowledgements to
Communications and Research Staff:
Andrew Townsend, Bob Fick, Bob Uhlenkott,
Cheryl Foster, Georgia Smith, Jean Cullen,
Jennifer Quintero and Sara Scudder.

This publication, the entire High Technology Business Scan and an accompanying slide presentation are available on the Internet at <http://lmi.idaho.gov/researchproject>.

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High Technology Business Scan:

Addendum for the 2010 Idaho Job Vacancy Survey

Introduction

The Idaho Department of Labor released the results for the 2010 Idaho Job Vacancy Survey in spring 2010. This report breaks down further the results of the survey by looking into the high technology occupations reported by respondents and the high-tech industries from which they reported.¹

The job vacancy survey collected the following information for job vacancies:

- Job titles and description
- Number of openings
- Newly created openings
- Full or part time
- Permanent or temporary
- Education requirement
- Experience requirement
- License or certification requirement
- Wage
- Duration of opening

The spring 2010 high technology results were analyzed by Idaho industry and occupation groups and best represent Idaho vacancies during the spring. A list of high-tech industries can be found in Table 1 on page 3 and the list of high-tech occupation groups that were reported in the survey can be found in Table 3 on page 5.

Summary

The 2010 Idaho Job Vacancy Survey showed 10,649 job openings statewide and a vacancy rate of 1.8 percent. The high-tech sector vacancy rate was 1.2 percent and, depending on how the data were viewed, had either 1) 581 high-tech occupation openings with a median starting wage of \$18.45 or 2) 1,341 total high-tech industry openings with a median starting wage of \$12. To recap from the high-tech business scan, high technology in Idaho can be measured by occupation and industry. Occupation data includes vacancies for specific occupations. Sometimes multiple job titles are grouped into one occupation. Industry information includes every occupation in the industry, whether it is directly related or not. For example, data on an establishment identified as part of “Semiconductor and Other Electronic Component Manufacturing” would include not just the actual production workers but all the clerks, secretaries, maintenance personnel and other nonproduction workers. Thus, a high-tech industry will have both high-tech and non-high-tech occupations. It then makes sense to have more vacancies with the industry measure than the occupation measure.

Industry

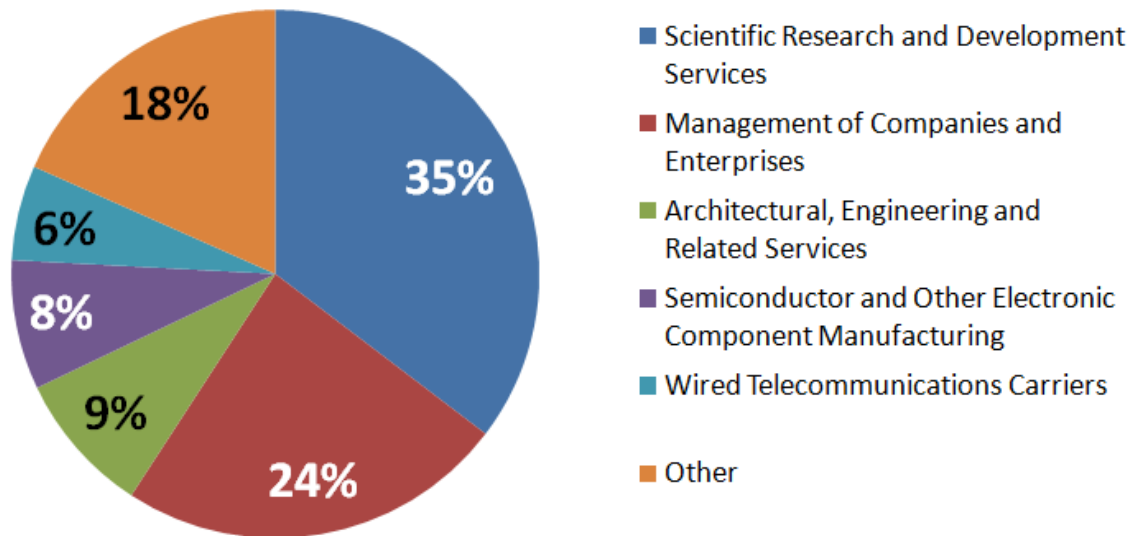
Of 46 possible high technology industry groups, 21 reported vacancies in the survey. Thirteen percent, or 1,341, of all job openings could be attributed to these 21 high-tech industry groups.² The Scientific Research and Development Services industry group and the Management of Companies and Enterprises industry group together made up about 60 percent of all high-tech vacancies. See Chart 1 on page 3.

¹For more information about the 2010 Idaho Job Vacancy Survey visit the department’s Labor Market Information site at <http://lmi.idaho.gov/LinkClick.aspx?fileticket=jrvl9I%2bEDI%3d&tabid=2434>.

For more information about Idaho’s high technology industries or occupations visit the department’s Labor Market Information site at <http://lmi.idaho.gov/LinkClick.aspx?fileticket=9PLkmgd2HJI%3d&tabid=2407>.

²A description of all North American Industry Classification System (NAICS) codes found within this report can be found at http://www.census.gov/eos/www/naics/2007NAICS/2007_Definition_File.pdf.

Chart 1: High-Tech Industry Share of High-Tech Vacancies, 2010



Source: 2010 Idaho Job Vacancy Survey, Idaho Department of Labor

Table 1: High-Tech Industries Reported in the 2010 Idaho Job Vacancy Report

NAICS	NAICS TITLE
5417	Scientific Research and Development Services
5511	Management of Companies and Enterprises
5413	Architectural, Engineering and Related Services
3344	Semiconductor and Other Electronic Component Manufacturing
5171	Wired Telecommunications Carriers
4234	Professional and Commercial Equipment and Supplies Merchant Wholesalers
5415	Computer Systems Design and Related Services
5416	Management, Scientific and Technical Consulting Services
3353	Electrical Equipment Manufacturing
5182	Data Processing, Hosting and Related Services
5191	Other Information Services
3332	Industrial Machinery Manufacturing
5112	Software Publishers
3369	Other Transportation Equipment Manufacturing
5612	Facilities Support Services
3339	Other General Purpose Machinery Manufacturing
3254	Pharmaceutical and Medicine Manufacturing
3341	Computer and Peripheral Equipment Manufacturing
3333	Commercial and Service Industry Machinery Manufacturing
3253	Pesticide, Fertilizer and Other Agricultural Chemical Manufacturing
3259	Other Chemical Product and Preparation Manufacturing

Source: 2010 Idaho Job Vacancy Survey, Idaho Department of Labor

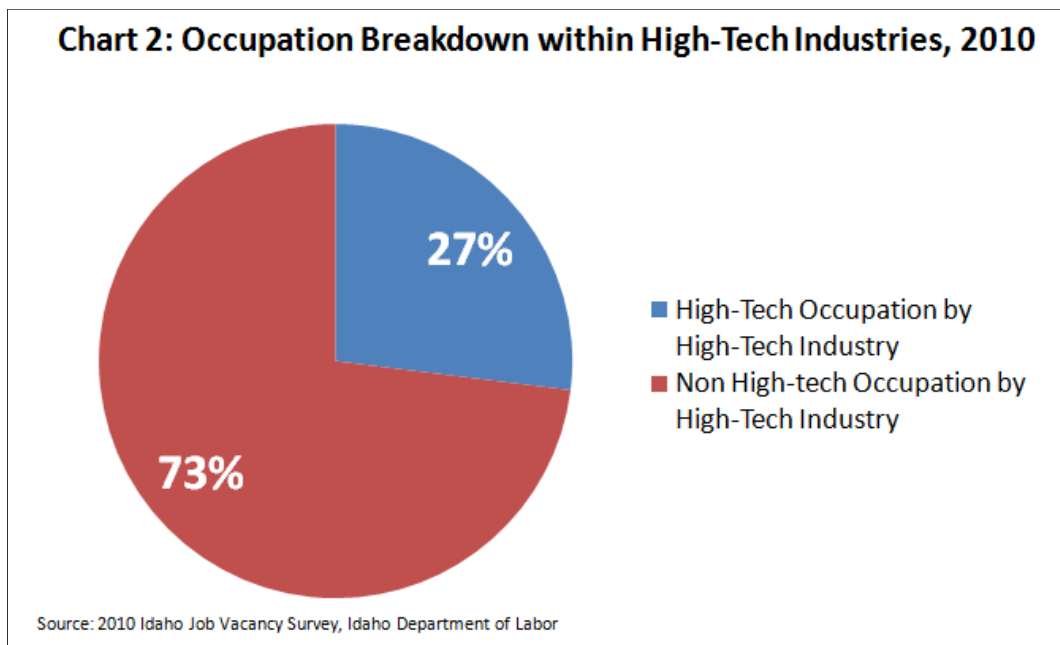
Of these vacancies, 15 percent were newly created positions, 93 percent were full time, 60 percent had been open for less than 30 days and 63 percent were being offered as permanent positions. Table 2 shows the requirements of the vacancies. Forty-five percent did not require an education beyond high school, 63 percent did require experience related to the vacancy, and 37 percent required a certificate or license.

Almost 60 percent of the vacancies offered a starting wage less than \$15 per hour and 11 percent offered \$30 or more per hour. The median wage for the high-tech industry vacancies was \$12. Health insurance, leave time and retirement or pension plans were offered for about 30 percent of the openings.

Table 2: 2010 High-Tech Job Vacancy Characteristics			
HighTech Job Vacancy Rate*	1.2%		
Statewide Job Vacancy Rate*	1.8%		
Share of High-Tech Occupations within High-Tech Industry	27%		
	Occupation		Industry
Number of High-Tech Vacancies	581		1,341
	Occupation		Industry
New Positions	11%		15%
Full-Time Positions	98%		93%
Part-Time Positions	2%		7%
Vacancies Open Less than 30 Days	58%		60%
Vacancies Open 30-59 Days	21%		17%
Vacancies Open 60 Days or More	20%		23%
Permanent Positions	63%		63%
Temporary/Seasonal Positions	37%		37%
Vacancies Requiring			
No Education Requirement	1%		29%
Diploma/GED	27%		16%
Vocational Training	8%		3%
Some College	3%		8%
Associates Degree	4%		6%
Bachelor's Degree	46%		34%
Advanced Degree	11%		5%
No Experience Required	22%		34%
Unrelated Work Experience	3%		3%
Experience Related to the Position	75%		63%
License or Certificate	27%		37%
Hourly Wages			
Less than \$15	38%		58%
\$15 - \$19.99	17%		7%
\$20 - 24.99	10%		20%
\$25-29.99	13%		4%
More than \$30	23%		11%
Median Wage	\$ 18.45		\$ 12
Vacancies Offering			
Health Insurance	29%		29%
Paid Sick or Vacation Leave	30%		29%
Retirement/Pension Plan	26%		29%
No Benefits Offered	15%		12%
*Vacancies per 100 filled jobs			
Source: 2010 Idaho Job Vacancy Survey, Idaho Department of Labor			

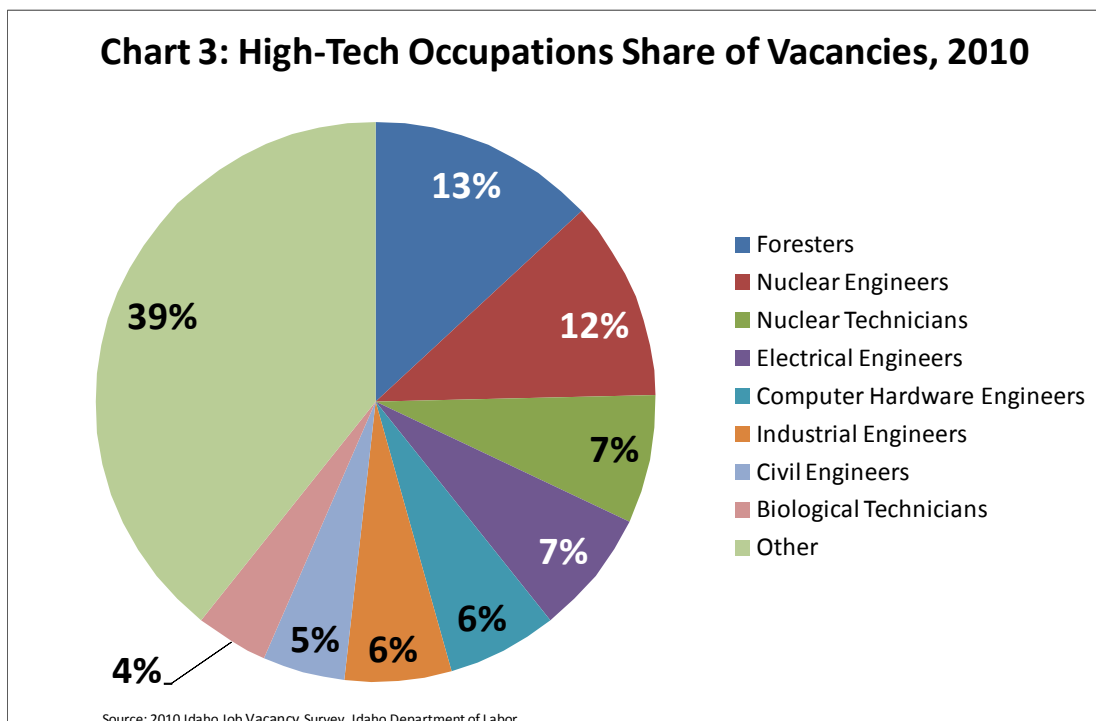
Of the 1,341 vacancies throughout Idaho's high-tech industry groups, 27 percent were for technology oriented occupations such as those listed in Table 3. The other 73 percent were for occupations not considered technology oriented as shown on Chart 2 on page 6.

Table 3: High-Tech Occupations Reported in the 2010 Idaho Job Vacancy Report	
SOC	SOC Detailed Occupation Title
11-3021	Computer and Information Systems Managers
11-9041	Architectural and Engineering Managers
11-9121	Natural Sciences Managers
15-1121	Computer Systems Analysts
15-1122	Information Security Analysts
15-1134	Web Developers
15-1142	Network and Computer Systems Administrators
15-1143	Computer Network Architects
15-2021	Mathematicians
15-2031	Operations Research Analysts
17-2041	Chemical Engineers
17-2051	Civil Engineers
17-2061	Computer Hardware Engineers
17-2071	Electrical Engineers
17-2072	Electronics Engineers, Except Computer
17-2081	Environmental Engineers
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors
17-2112	Industrial Engineers
17-2131	Materials Engineers
17-2141	Mechanical Engineers
17-2161	Nuclear Engineers
17-2171	Petroleum Engineers
17-3013	Mechanical Drafters
17-3022	Civil Engineering Technicians
17-3023	Electrical and Electronics Engineering Technicians
17-3026	Industrial Engineering Technicians
19-1021	Biochemists and Biophysicists
19-1023	Zoologists and Wildlife Biologists
19-1031	Conservation Scientists
19-1032	Foresters
19-1042	Medical Scientists, Except Epidemiologists
19-2012	Physicists
19-2031	Chemists
19-2032	Materials Scientists
19-2041	Environmental Scientists and Specialists, Including Health
19-2042	Geoscientists, Except Hydrologists and Geographers
19-2043	Hydrologists
19-4021	Biological Technicians
19-4031	Chemical Technicians
19-4041	Geological and Petroleum Technicians
19-4051	Nuclear Technicians
19-4091	Environmental Science and Protection Technicians, Including Health
19-4093	Forest and Conservation Technicians
Source: 2010 Idaho Job Vacancy Survey, Idaho Department of Labor	



Occupation

Of the 71 possible technology oriented occupations, 43 were reported as having a vacancy in the survey. Five percent of all job openings, or 581, were technology oriented occupations. Together, Foresters and Nuclear Engineers occupations accounted for a quarter of all high-tech vacancies in Idaho. See Chart 3.



Of these vacancies, 11 percent were newly created positions, 98 percent were full time, 58 percent had been open for less than 30 days and 63 percent were being offered as permanent positions. Table 2 on page 4 shows the requirements for the high technology oriented vacancies. Fifty-seven percent required a bachelor's or advanced degree, 75 percent required experience related to the position and 27 percent required a certificate or license.

The medium starting wage being offered for these high-tech occupations was \$18.45, \$6.45 more than the high-tech industry starting wage. A little more than a quarter of the vacancies offered health insurance, leave time or retirement and pension plans. Fifteen percent did not offer any benefits. See Table 2 on page 4.

Table 4 lists vacancies that were releasable at the detailed occupational group level.³ With 300 vacancies, the high-tech occupations that fall within architecture and engineering represent 52 percent of all high-tech vacancies. Life, physical and social science occupations account for 35 percent and the remaining 13 percent are from both management occupations and computer and mathematical occupations.

Table 4: High-Tech Vacancy Characteristics by Occupational Major Group and Detailed Group, 2010										
SOC Code	SOC Description	Estimated Vacancies*	Full-Time Openings	Temporary or Seasonal Openings	Newly Created Positions	Vacant 60+ Days	Requiring Education Beyond HS/GED	Related Experience Required	License or Certification Required	Preparation Requirement Level**
11	Management Occupations	19	100%	5%	0%	0%	81%	94%	0%	Very High
11-3021	Computer and Information Systems Managers	10	100%	-	-	-	75%	100%	0%	Very High
15	Computer and Mathematical Occupations	60	100%	28%	18%	18%	72%	63%	39%	Very High
15-1122	Information Security Analysts	8	100%	12%	0%	0%	-	88%	100%	Medium-Low
15-1142	Network and Computer Systems Administrators	17	100%	29%	6%	37%	100%	73%	-	Very High
15-1143	Computer Network Architects	19	100%	10%	31%	14%	100%	63%	17%	Very High
17	Architecture and Engineering Occupations	300	99%	23%	8%	33%	97%	70%	39%	Very High
17-2051	Civil Engineers	27	100%	7%	53%	-	100%	89%	72%	Very High
17-2071	Electrical Engineers	42	100%	24%	2%	12%	100%	71%	43%	Very High
17-2081	Environmental Engineers	17	100%	23%	0%	46%	100%	77%	54%	High
17-2112	Industrial Engineers	36	100%	3%	12%	46%	100%	97%	0%	Highest
17-2141	Mechanical Engineers	17	100%	12%	12%	18%	100%	88%	0%	Very High
17-3023	Electrical and Electronics Engineering Technicians	14	100%	37%	7%	48%	89%	72%	57%	High
19	Life, Physical, and Social Science Occupations	203	95%	61%	13%	10%	46%	85%	19%	Medium-Low
19-4021	Biological Technicians	24	77%	77%	23%	24%	100%	73%	0%	Very High
-	High-Tech Total	581	98%	36%	11%	20%	72%	75%	27%	Very High

*The column totals of the Detailed occupations will not add to the corresponding Major Groups as this table shows releasable Detailed occupations only. A full list of high technology occupations that reported vacancies can be found in Table

** Preparation requirement level is based on the combination of education and experience requirements.

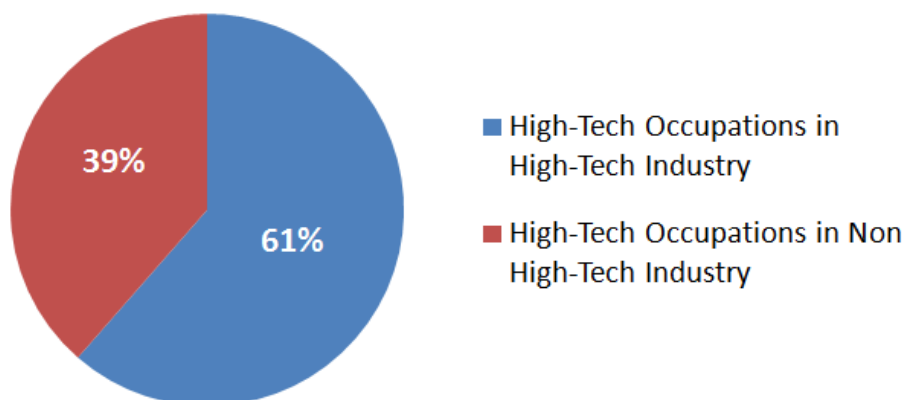
Source: 2010 Idaho Job Vacancy Survey, Idaho Department of Labor

Continued on next page.

³The Standard Occupational Classification (SOC) system has five levels by which an occupation can be described. The highest level, two-digit major group, contains the least amount of detail. The two-digit major group has 23 total occupations. The lowest level, six-digit detailed occupation, contains the most detail about 840 occupations. More information about the SOC system can be found on the Bureau of Labor Statistics SOC page at <http://www.bls.gov/soc/>.

Of the 581 vacancies, 61 percent were in a high-tech industry. The other 39 percent were in a non high-tech industry. Chart 4 lists occupations that either 1) had vacancies only in a high-tech industry or 2) had vacancies only in a non high-tech industry. The two occupations that made up a quarter of all vacancies, Foresters and Nuclear Engineers, show up in this table. Foresters only had open positions in a non high-tech industry while nuclear engineers only had vacancies in a high-tech industry.

Chart 4: Industry Breakdown of High-Tech Occupations, 2010



Source: 2010 Idaho Job Vacancy Survey, Idaho Department of Labor

Table 5: High-Tech SOC by Type of Industry, 2010

SOC	Occupations Found Only in High-Tech Industry
15-2021	Mathematicians
15-2031	Operations Research Analysts
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors
17-2161	Nuclear Engineers
17-2171	Petroleum Engineers
19-2012	Physicists
19-2032	Materials Scientists
19-2043	Hydrologists
19-4031	Chemical Technicians
19-4041	Geological and Petroleum Technicians
SOC	Occupations Found Only in Non High-Tech Industry
15-1134	Web Developers
17-3026	Industrial Engineering Technicians
19-1021	Biochemists and Biophysicists
19-1031	Conservation Scientists
19-1032	Foresters
19-1042	Medical Scientists, Except Epidemiologists
19-4093	Forest and Conservation Technicians

Source: 2010 Idaho Job Vacancy Survey, Idaho Department of Labor